Claims

1. Inking device having a rotary drum (2), called anilox roll, of a flexographic printing machine, of the kind of a device called doctor blade chambers comprising a closed box (4,6) extending longitudinally and supported by a frame (8) by the intermediary of a moving means (10), for the application of the moving means (10) against the anilox roll (2) in the kind of enveloping in a sealing way one part of the rotation surface of the anilox roll (2), called inking zone, wherein the said box (4,6) defines and delimits an interior space, called principal chamber, intended to be the place of a circulation of the ink and being furnished for this purpose with a feeding conduit (12) for the ink and with a discharge conduit (14) for the ink, as well as a pair of longitudinal blades, called positive blade (16) for that blade intended to be located upstream of the inking zone and, respectively, negative blade (18) for that blade located downstream of the inking zone, characterized in that
the principal chamber is furnished with means (32, 34) for providing the place of an ink circulation at atmospheric pressure and is divided into two superposed chambers (20, 22) communicating between themselves by ink circulation channels (24) by simple gravity, from the upper chamber (20), called supply chamber, relative to the lower chamber (22), called in discharge chamber, wherein the two said chambers (20, 22) are separated one from the other by a blade (26), called retaining blade, for furnishing an ink reserve (28) between the two chambers (20, 22) and upstream of the negative blade (18),
of such kind that the ink can circulate by simple gravity in the interior of the box (2,4) and that a reservoir container of the ink (28) is furnished for the inking of the anilox roll (2);

2. Device according to claim 1 characterized in that the said circulation channels (24) are formed by a passage furnished outside and beyond of the ends of the retaining blade (26), between this latter retaining blade (26) and the end wall (6) of the box;

3. Device according to one of the preceding claims characterized in that the end faces of the box (4, 6) are formed by cheeks or side plates (6) intended to be applied in sliding contact against the corresponding end faces of the anilox roll (2), wherein said cheeks or side plates (6) form by themselves sealing members between the box (4,6) and the anilox roll (2);

4. Device according to one of the preceding claims characterized in that the negative blade (18) is supported on the box (4,6) by the intermediary of a detachable support (30),
in such a way that the negative blade (18) can be extracted from the box (4,6) by withdrawal of the support without requiring a global replacement of the doctor blade chamber;

5. Device according to one of the preceding claims characterized in that the retaining blade (26) forms a closed angle A contained between five degrees and 15 degrees and opening toward the negative blade (18) together with the tangent of the anilox roll taking at the point of contact between the retaining blade (26) and the anilox roll (2);

6. Device according to one of the preceding claims characterized in that anyone at least of the positive blade (16), negative blade (18), and of the retaining blade (26) is

furnished with a means for controlling the contact pressure which the respective blade is intended to exert on the anilox roll (2).

7. Device according to one of the preceding claims characterized in that the moving means (10) of the box (4) comprises a member (11) exerting an elastic pressure on the box relative to the anilox roll (2), wherein the box (4) takes support under the effect of the set elastic pressure, against the frame (8) by the intermediary of the controllable thrust (13) with which the box (4) is furnished.